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January 16, 2004

BY HAND AND/OR ELECTRONICALLY, AS NOTED

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

**Re: DA 03-3585, RM-10821; Wireless Telecommunications Bureau Seeks
Comment On MariTEL, Inc. Petition for Declaratory Ruling and National
Telecommunications and Information Administration Petition for Rulemaking
Regarding the Use of MariTime VHF Channels 87B and 88B; NOTICE OF EX
PARTE PRESENTATION; Filed By Hand and Electronically**

**PR Docket No. 92-257; Amendment of the Commission's Rules Concerning
Maritime Communications; NOTICE OF EX PARTE PRESENTATION; Filed
Electronically**

**ET RM-10743; Commission's Rules to Promote the Use of VHF Public Coast
Station Frequencies; NOTICE OF EX PARTE PRESENTATION; Filed
Electronically**

**DA 03-1484; MARITEL, Inc. Request to Extend Construction Deadline for Certain
VHF Public Coast Station Geographic Area Licenses; NOTICE OF EX PARTE
PRESENTATION; Filed by Hand**

Dear Ms. Dortch:

Pursuant to the provisions of Section 1.1206(b) of the rules and regulations of the Federal Communications Commission ("FCC"), this letter provides notice of a meeting between Dan Smith and Jason Smith of MariTEL, Inc. ("MariTEL"), their undersigned counsel and Catherine Seidel, Scot Stone, Jeffrey Tobias and Tim Maguire, all of the Wireless Telecommunications Bureau.

Marlene H. Dortch

January 16, 2004

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At the meeting, MariTEL officials explained their plans to provide a data communications service on the VHF Public Coast ("VPC") channels for which MariTEL is licensed. They explained that harmful interference caused by the proliferation of currently approved automatic identification system ("AIS") devices would prevent MariTEL from successfully introducing its service and would effectively reduce the frequencies, purchased by MariTEL, available to it. MariTEL proposed means by which these matters, and those regarding the request by the United States Coast Guard ("USCG") to dedicate channels 87B and 88B for AIS, could be solved. It stated that it would provide a more complete version of its proposal shortly. MariTEL also noted that although the FCC recently approved its request for extension of time to construct its facilities, it could not effectively do so until matters related to its authorized spectrum, had been resolved. A copy of a presentation made to FCC officials at the meeting is attached.

Should there be any questions regarding this matter, please contact the undersigned directly.

Cordially yours,

/s/ Russell H. Fox

Russell H. Fox

Attachment

cc: (each electronically, w/attachment)
Catherine Seidel
Scot Stone
Jeffrey Tobias
Tim Maguire



Marine VHF Data Discussion

January 15, 2004

- MariTEL Commercial Opportunity:
 - Use VPC channels to provide AIS based network services in non-PAWSS areas for port authorities, local governments, etc. to facilitate “voiceless” maritime communications.
 - Use channels 87 and 88 to communicate with SOLAS vessels carrying AIS transponders.
 - Bundle these and other services with traditional voice and/or data VPC services on a CMRS or PMRS basis.

Hypothetical implementation of FCC 80.371: up to (2) narrowband offset **duplex** channels

83	24	84	25	85	26	86	27	87	28	88	29											
483	283	424	224	484	284	425	225	485	285	426	226	486	286	427	227	487	287	428	228	488	288	429

- Basis of VPC Auction... “Ground Rules”
 - **Up to** (2) narrowband offset duplex channels used only in USCG PAWSS VTS operations for ship-shore and shore-ship transmissions (*nationwide ship-ship uses 228B*) to actively manage the flow of vessels in narrow and congested navigable waterways.

- 12.5 kHz or 25 kHz channel spacing
- Up to 22 kbps
- USB and RS-232 Serial Port for easy networking
- Selective ID and Broadcasting Addressing
- 1 to 6 Watts
- Less than 15 ms transmitter attack time
- On board RAM for “seemingly” faster throughput

Not an experiment



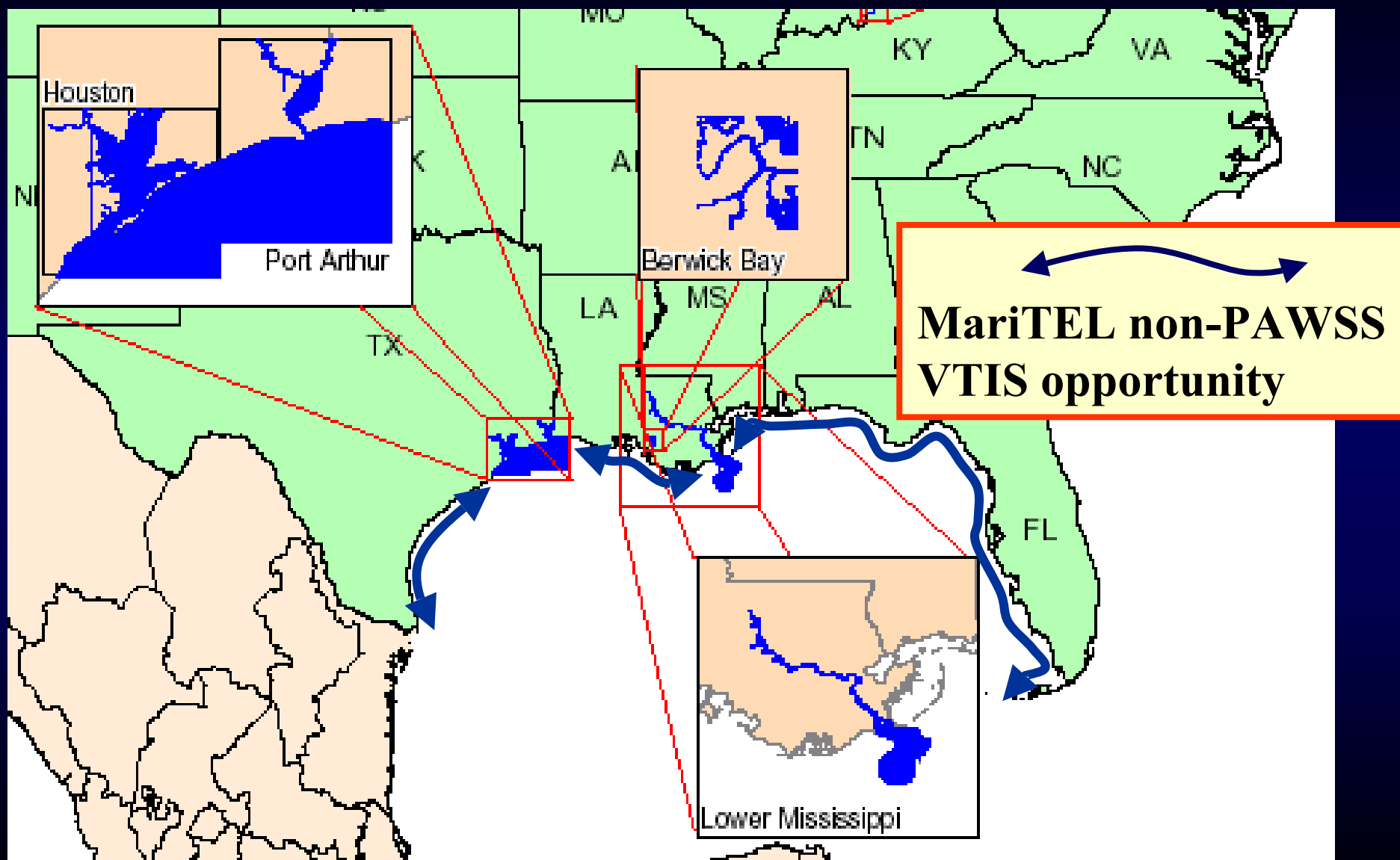
Product Segmentation

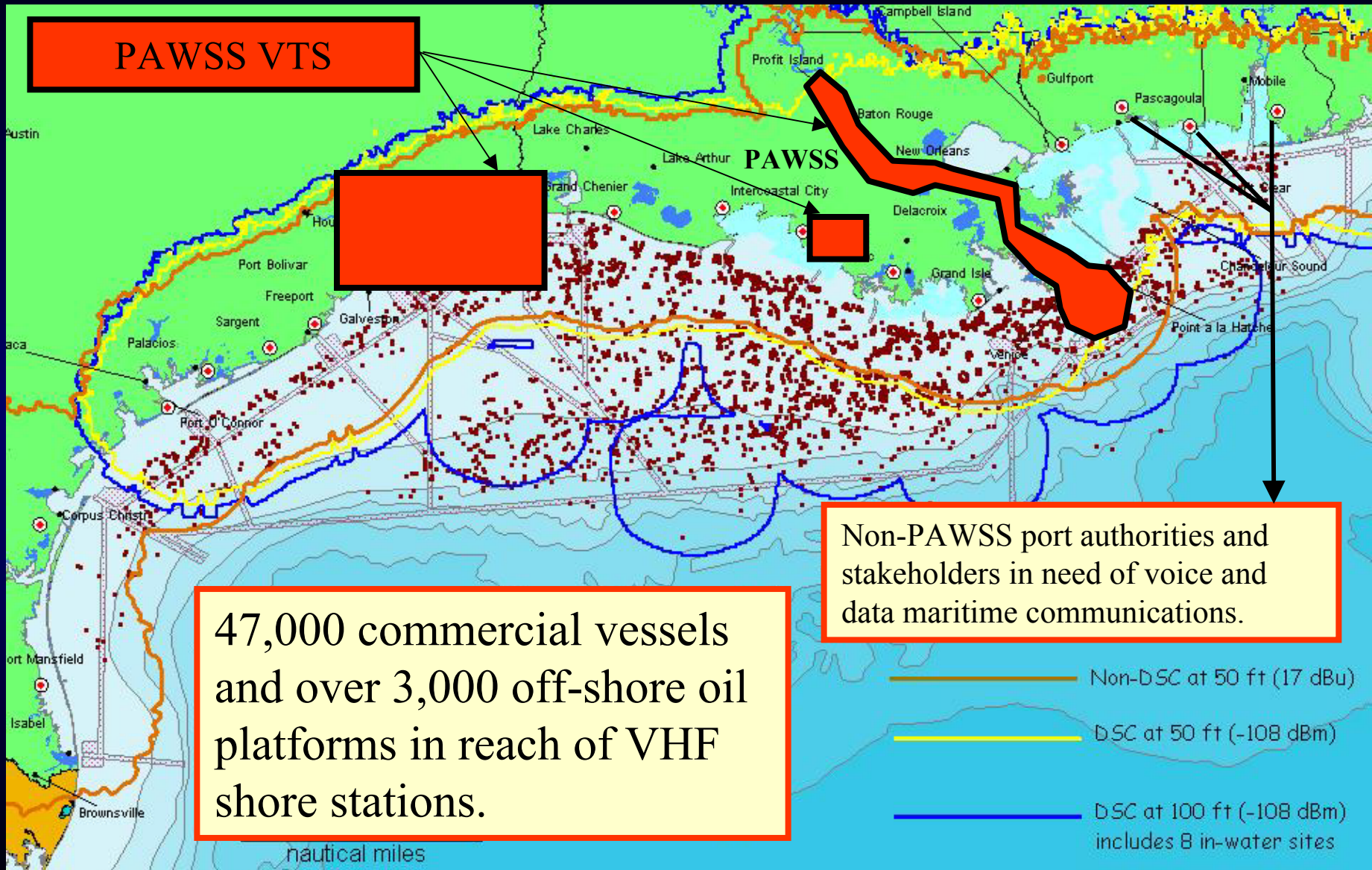
		Cellular			2.4 GHz Unlicensed		
	VHF	GOM Analog	2.5G	3G	LAN	Pt-Pt / BWA	Satellite
Maximum Bandwidth	22+ kbps	9.6 kbps	50 kbps	Mbps	Mbps	> 100 kbps	100 kbps - Mbps
Integration to Vessel's Bridge	✓ ✓ ✓	✓	✓	✓	✓	✓	✓ ✓ ✓
Applications							
Vessel telemetry (ex. Engine diagnostics)	✓ ✓ ✓		✓	✓	✓	✓	✓ ✓
Automatic vessel location ("AVL")	✓ ✓ ✓		✓	✓	✓	✓	✓ ✓
Text messaging	✓ ✓ ✓	✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
E-mail	✓ ✓	✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
Low speed web browsing (Eudora)	✓ ✓		✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
Full speed web browsing (Explorer)			✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓ ✓ ✓
Maximum coverage distance	50 mi	30 mi	15 mi	15 mi	5 mi	25 mi	N/A
Monthly price range	\$15 to \$100	\$100 to \$500	\$40 to \$150	\$40 to \$150	\$150+	\$500+	\$1,000+
Price of customer equipment	\$500+	\$500+	\$100	\$100	\$50	\$500+	> \$2,000

Complimentary to broadband technologies and shorter wavelength spectrum.



Gulf of Mexico (“GOM”) Spotlight







3 Consequences of NTIA Petition

Before meeting obligations of FCC 80.371

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Hypothetical implementation of FCC 80.371: up to (2) narrowband offset **duplex** channels

83	24	84	25	85	26	86	27	87	28	88	29											
483	283	424	224	484	284	425	225	485	285	426	226	486	286	427	227	487	287	428	228	488	288	429

USCG Request to MariTEL... after the rules were set, narrowband offset **duplex**

83	24	84	25	85	26	86	27	87	28	88	29											
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MariTEL / USCG Memorandum of Agreement ("MOA")... switch from 87B (simplex) to 487A/B (duplex)

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NTIA Petition... as written (wideband simplex on ship station tx side)

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NTIA Petition... reality of need for "guard band" spectrum

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NTIA / USCG Desire to Take & Warehouse Spectrum

83	24	84	25	85	26	86	27	87	28	88	29											
483	283	424	224	484	284	425	225	485	285	426	226	486	286	427	227	487	287	428	228	488	288	429

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






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1.5

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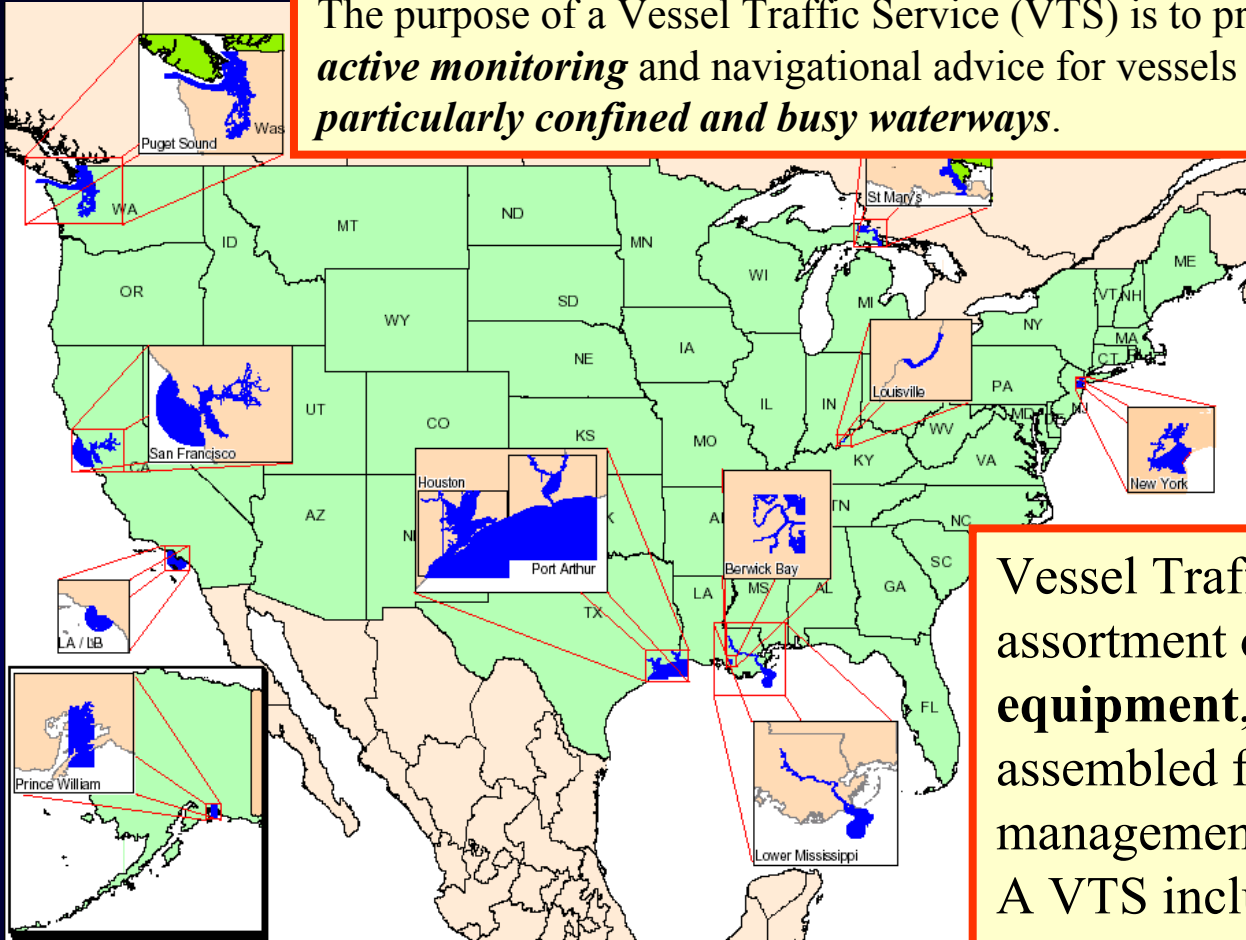
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-  MariTEL "wideband" 25 KHz channels
-  MariTEL "narrowband" 12.5 KHz channels
-  MariTEL channels above Line A
-  Narrowband 12.5 KHz duplex channels for PAWSS VTS ship-shore, shore-ship communications
-  Channel assigned for use in PAWSS by USCG per Section 80.371 (c)(3)
-  Exclusive use of channel by the licensed party; not above/beyond FCC rules
-  Designate and PROTECT

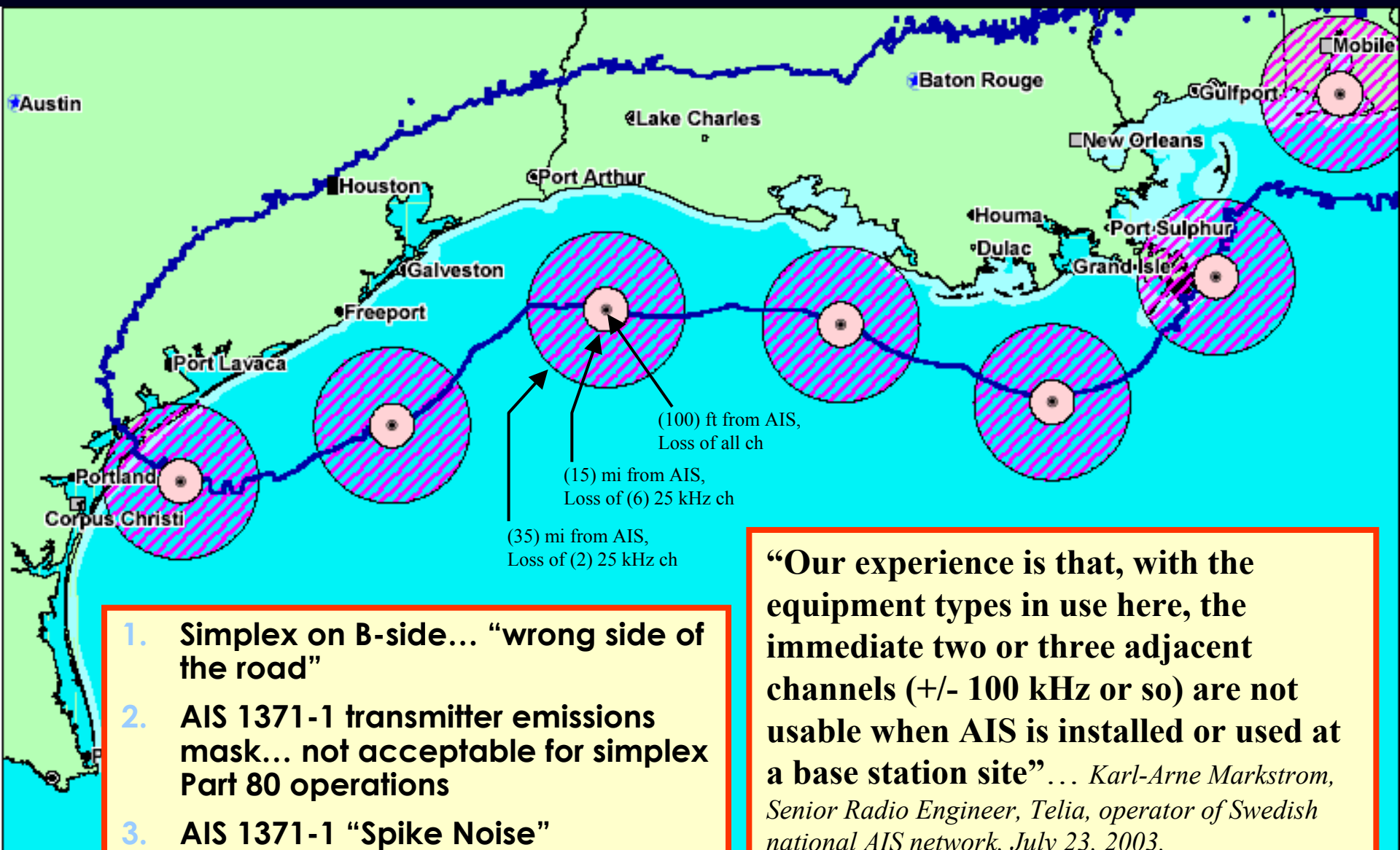
Federal vs. Non-Federal

The purpose of a Vessel Traffic Service (VTS) is to provide *active monitoring* and navigational advice for vessels in *particularly confined and busy waterways*.



Vessel Traffic Services (VTS) are the assortment of **personnel, procedures, equipment, and regulations** assembled for the purpose of traffic management in a given body of water. A VTS includes some means of **area surveillance, traffic separation, vessel movement reporting, a traffic center, and enforcement capability**.

AIS to VPC Interference



"Our experience is that, with the equipment types in use here, the immediate two or three adjacent channels (+/- 100 kHz or so) are not usable when AIS is installed or used at a base station site" ... Karl-Arne Markstrom, Senior Radio Engineer, Telia, operator of Swedish national AIS network, July 23, 2003.

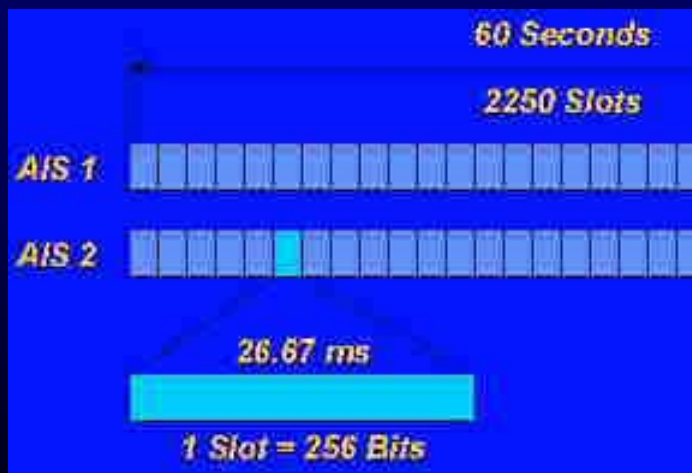
1. Bandwidth
2. Federal vs. Non-Federal
3. AIS to VPC Interference

Result: Overturns the VPC auction and eliminates MariTEL's right to use its licensed spectrum.



Solving the Controversy

- MariTEL / FCC and NTIA agree to designate channels 87B and 88B for 25 kHz simplex AIS use throughout the major navigable waterways on a **shared** government, non-government basis.
 - No cost to vessel operators for use of spectrum.
 - Federal government entities allowed to operate shore stations in all areas for VTS and surveillance applications.
 - MariTEL allowed to operate shore stations in all areas for non-federal government shore station AIS applications.
 - NTIA and MariTEL share use of both AIS channels using “time slot allocation” techniques.



The SOTDMA broadcast mode allows the system to be overloaded by 400 to 500% through sharing of slots, and still provide nearly 100% throughput for ships closer than 8 to 10 NM to each other in a ship to ship mode. In the event of system overload, only targets further away will be subject to drop-out, in order to give preference to nearer targets that are a primary concern to ship operators. In practice, the capacity of the system is nearly unlimited, allowing for a great number of ships to be accommodated at the same time.

http://www.navcen.uscg.gov/enav/ais/how_AIS_works.htm

1. Remedy 1371-1 AIS interference issues due to current transmitter emissions mask and “spike noise”.
2. Make it illegal for unauthorized shore station transmission **and** reception of AIS signals.
3. Approve MariTEL’s PMRS Petition (RM-10743).